

Dear Colleague,

The second announcement for Space Resources Roundtable VI is attached, in both word and pdf formats. The meeting will be held Nov. 1-3 at the Colorado School of Mines, Golden, CO.

This year's Roundtable promises to be particularly exciting because of the Moon, Mars, and Beyond initiative. President Bush made explicit reference to lunar and space resources in his speech announcing the initiative, and space resources has been playing an important role in NASA planning to date.

Please send the announcement on to anyone you think might be interested.

Aloha,
Jeff Taylor
Chair of the Organizing Committee

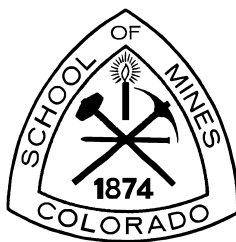
--

G. Jeffrey Taylor
Professor
Hawai'i Institute of Geophysics and Planetology
University of Hawai'i
1680 East-West Rd., Honolulu, HI 96822
voice: 808-956-3899 fax: 808-956-6322
www.higp.hawaii.edu/~gjtaylor online science magazine: www.psrp.hawaii.edu

SPACE RESOURCES ROUNDTABLE VI

**Colorado School of Mines
November 1-3, 2004**

www.mines.edu/research/srr



Sponsored by:
*Colorado School of Mines
Lunar and Planetary Institute
Space Resources Roundtable, Inc.*

July 30, 2004

STEERING COMMITTEE

Joe Burris, WorldTradeNetwork.net
R. Scott Baird, NASA Johnson Space Center
David Criswell, University of Houston
Michael B. Duke, Colorado School of Mines
Stephen Mackwell, Lunar and Planetary Institute
Clyde Parrish, NASA Kennedy Space Center
Sanders Rosenberg, InSpace Propulsion, Inc.
Frank Schowengerdt, Code US, NASA Headquarters
G. Jeffrey Taylor, University of Hawai'i
Lawrence Taylor, University of Tennessee

CONTACT INFORMATION

Scientific Program:

G. Jeffrey Taylor
Workshop Program Committee Chair
gjtaylor@higp.hawaii.edu

SCHEDULE

July 30	Second announcement mailed
October 1	Electronic abstract submission deadline
October 8	Final announcement mailed
October 12	Preregistration deadline
November 1-3	Space Resources Utilization Roundtable VI at Colorado School of Mines

PURPOSE AND SCOPE

The Space Resources Roundtable, Inc., in collaboration with the Colorado School of Mines and the Lunar and Planetary Institute, will convene the fifth Space Resources Roundtable November 1-3, 2004 at the Colorado School of Mines, in Golden, CO.

The purpose of the Space Resources Roundtable is to bring together interested space professionals, experienced resources personnel from industry, and entrepreneurs who may be considering entering the process of developing and utilizing the resources of space, including the Moon, Mars and asteroids. The goal of the Space Resources Roundtable is to advance the prospects for the commercial development of space resources through information exchange between personnel in government, commercial, and academic organizations.

This year's meeting promises to be particularly exciting. U. S. President George W. Bush announced a bold new exploration program for NASA that includes a central role for *in situ* resource utilization on the Moon and Mars. The plan calls for robotic and human missions to the Moon that lead to technological capabilities and a long-term space infrastructure that will enable sustained human operations on the Moon and Mars. The European Space Agency has similar long-range plans. The Space Resources Roundtable, with its visionary and technically-savvy participants, is in a unique position to help shape these new programs. Thus, the Space Resources Roundtable solicits contributions in the areas of:

- Identification of orbital or landed measurements of the Moon and Mars that will help identify and characterize potential resources
- Descriptions of experimental packages to land on the lunar surface that will demonstrate resource utilization processes, including those with carryover to Mars exploration
- Descriptions of resource utilization experiments that can be flown on robotic landed missions to Mars are also welcomed
- Resource processing technologies, including descriptions of demonstration experiments that could be flown on lunar or Martian landed missions
- Descriptions of experiments that could lead to manufacturing with space resources
- Commercial potential of space resources on Earth and in Space
- Space power systems (including space power as a resource)
- Planetary surface materials transportation systems
- Space transportation systems utilizing space resources
- Market demand and utilization scenarios for products made from space resources
- The relationship between government-funded exploration and private ventures in identifying and using space resources, and how to develop public-private partnerships
- Property rights in space

The Roundtable will be organized to accommodate two goals: discussion of technical reports and subgroup analysis of specific topics. Our goal this year is to produce one or more short white papers to present to appropriate NASA and, through international participants, ESA officials. These documents are intended to provide government decision makers with technically sound recommendations for incorporating space

resources into its new exploration program. Potential attendees are encouraged to suggest discussion topics for consideration by the Roundtable. Topics under consideration by the Program Committee at this time are the following:

- Strategies for effective involvement of private industry in the Exploration initiative (independent activities, collaborations with universities, Government-Industry partnerships, optimal cost sharing with government agencies).
- Arguments for the importance of ISRU demonstration experiments on landed missions to the Moon and Mars, and the synergism between resource extraction processes on the Moon and Mars.

The previous meetings of the Space Resources Roundtable have gathered many leading investigators who are interested in commercial development of space resources. A loosely knit community of interest is emerging, with the common goal of finding the conditions in which the resources of space will become commercially rewarding. Space resource utilization has begun to attract the attention of NASA's space exploration programs, as shown by the prominence given to it in the President's announcement and in recent NASA calls for proposals.

Against this backdrop, the Space Resources Roundtable is encouraging a broad discussion of the issues associated with commercial development. In some cases, for the Moon and asteroids, additional exploration missions will be needed to identify and characterize potentially valuable resources and to lay the groundwork for technology development. Such missions are relatively low cost missions and missions currently being planned or discussed in various countries (U. S., ESA, Japan, India, and China) can contribute to the goal of space resource characterization and development. The technologies required need to be defined and developed. The means should be found to link the government and commercial sectors into partnerships in these missions and technology development.

THE SPACE RESOURCES ROUNDTABLE, INC.

The Space Resources Roundtable, Inc. has been incorporated within the State of Colorado and has gained 501c(3) status with the U. S. Internal Revenue Service. Membership in the Space Resources Roundtable, Inc. is \$75.00/year for individual members. Paid-up members, who pay their dues after June 30, 2004, will receive a \$50 discount from the registration fee at Space Resources Roundtable VI. Membership payments can be transmitted to Professor Alex Ignatiev, Treasurer, Texas Center for Semiconductors and Advanced Materials, University of Houston, Houston, TX 77204-5002

WHEN AND WHERE

The Roundtable will be held in Green Conference Center on the campus of the Colorado School of Mines, in Golden, Colorado, on November 1 through 3, 2004. The campus is conveniently located to downtown Denver and is about a 45-minute drive from Denver International Airport. Conference activities will include a dinner on the second evening, two lunches, and coffee/soft drinks at morning/afternoon breaks. A complete list of nearby accommodations will be provided with the second announcement, which will be sent to all persons who respond to this notice. A formal call for abstracts will be included in the second announcement.

The Roundtable meeting will be constructed from topics chosen from the submitted abstracts or by invitation from the Roundtable organizing committee. The Space Resources Roundtable web site, <http://www.mines.edu/research/srr>, provides access to the abstracts, programs and other information from previous meetings as well as those of the current meeting.

SUBMISSION OF ABSTRACTS

Please submit one-page abstracts electronically using Microsoft Word to Linda M. V. Martel, University of Hawaii, linda@higp.hawaii.edu.

Format for the abstract is Microsoft word Times New Roman font:

Title, centered, in 14 point bold, all caps. The rest of the document should be in 11 point font, not bolded.

Author(s) initials and last name(s) centered below title.

Author(s) institution(s), addresses and email addresses, centered.

Leave two space between authors' affiliations and the abstract.

Abstracts should be substantive, that is, tell the reader about your topic rather than saying that you are going to talk about the topic. Conclusions or recommendations should be stated briefly.

Abstracts may be submitted on any topic related to space resource utilization (see list above), including demand models for various potential markets, exploration for resources, resource extraction, infrastructure systems needed to produce and utilize space resources, including transportation, power, automated systems, etc., technology development, political, legal and economic framework, and other topics that may be related. Moon, Mars, asteroids, Martian satellites, energy and other potential resources are valid topics, but the Program Committee encourages participants to focus on topics related to the Explorative Initiative, hence on lunar and Martian resources.

Abstracts are due by October 1, to allow time for the program to be formulated and organized.

REGISTRATION FEE

The registration fee for Space Resources Roundtable V is \$200 (\$150 for paid-up members of the Space Resources Roundtable) until October 12, and \$225 beyond that date. A registration form is provided in this announcement. It should be mailed along with check or money order to Office of Special Programs and Continuing Education, Colorado School of Mines, 1500 Illinois St., Golden, CO 80401. Email is space@mines.edu.

The registration fee will include a catered dinner on the evening of November 2, continental breakfast on all three days of the meeting, and lunches on November 1 and 2. Registrants will be provided with a full set of abstracts at the beginning of the meeting. Abstracts, summaries of discussion, and presentation materials will be collected for the Space Resources Roundtable web site, <http://www.mines.edu/research/srr>.



Colorado School of Mines

Office of Special Programs & Continuing Education

Con:

Conference Title:

Space Resources Roundtable VI

**Conference
Location:**

Colorado School of Mines

Conference Dates:

November 1-3, 2004

Fee:

\$200.00

Your Name:

Your Title:

Affiliation/Company:

Address:

City, State, Zip:

Country:

Phone:

Fax:

E-mail Address:

Please note that you are not fully registered until we have received your registration payment. Payment can be made by check, money order or credit card to Colorado School of Mines, Department of Special Programs and Continuing Education, 1500 Illinois St., Golden, CO 80401. This can be done securely on line by going to https://hagrid.mines.edu/outreach/cont_ed/form_pgp.htm or send by mail (prior to October 10, to the above address).

Payment Method

- ☐ Check - mail in
☐ Credit Card

Credit card type (we can accept these three):

- ☐ American Express
☐ Master Card
☐ Visa

Credit Card Number:

Expiration Date:

Name on Card:

Course contact information:

Office of Special Programs and Continuing Education

Colorado School of Mines

Golden, CO 80401

Metro-Denver area phone: 303/273-3321

Out-of-area, out-of-state phone: 800/446-9488, ext.3321

Fax: 303/273-3314

E-mail: space@mines.edu

CSM Technical point of Contact: Dr. Michael B. Duke, Director

Center for Commercial Applications of Combustion in Space

Colorado School of Mines

1500 Illinois St.

Golden, CO 80401

Email: mduke@mines.edu

Telephone: 303-384-2096

FAX: 303-384-2327